Acta Zootaxonomica Sinica, 31 (3): 617– 620 (July, 2006) ISSN 1000-0739
动物分类学报

ON THE GENUS CASIPTERYX TAEGER (HYMENOPTERA, TENTHREDINIDAE) WITH DESCRIPTION OF A NEW SPECIES FROM CHINA

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Abstract A new species of *Casipteryx* Taeger is described from Sichuan, China: *Casipteryx maculatina* sp. nov. The new species differs from the two known species of the genus in the supra-antennal tubercles, scape, pedicel, basal half of the third antennal segment, anterior half of clypeus, dorsal side of each mandible, tegulae and the third abdominal tergite reddish yellow, the forewing with a narrow infuscate cross band below stigma, cell 2Rs longer than $1R_1$ and 1Rs together, lateral furrows of postocellar area deep, flagellum longer than head breadth, the distance between eyes below as long as height of an eye, and the tergites of abdomen with distinct metallic bronze tinge. The generic characters of *Casipteryx* Taeger are redefined based on research on the three known species of the genus. A key to species of the genus is provided. The type specimen is deposited in Insect Collection of Central South Forestry University, Changsha, China.

Key words Hymenoptera, Tenthredinidae, *Casipteryx*, new species, China.

Casipteryx Taeger is a very small sawfly genus erected by A. Taeger in 1991 based on a single specimen of Allantus roborowskyi Jakovlev collected in Tibet, China, which is the only specimen for the species till then. Nie and Wei (1997) described the second species of the genus from North China and also the unknown male of *Casipteryx roborowskyi* (Jakovlev) from Sichuan. The third species of the rare sawfly genus is described here. Based on new material the generic characters of *Casipteryx* Taeger are redefined and a key to known species is also provided.

The distribution pattern of the genus is Pattern III 4 of the Eastern Asian Pattern (Wei and Nie, 1997).

The type specimen is deposited in Insect Collection of Central South Forestry University, Changsha, China.

Casipteryx **Taeger, 1991**

Casipteryx Taeger, 1991. *Entomol. Abh. Mus. Tierk.*, 54 (3): 72.

Type species: *Allantus roborowskyi:* Jakovlev 1887. Original designation.

Diagnosis. Body robust. Clypeus and labrum flat, clypeus emarginated, labrum very short and transverse, truncated or emarginated on anterior margin; malar space as long as diameter of an ocellus; each mandible with 5-6 teeth, right mandible with a dorsal tooth; mentum and palpi very short, labial palpus stout and maxillary palpus slender; head broader than long and weakly elongated behind eyes, occipital carina developed and complete, lateral furrows of frons distinct; eyes medium-sized, distance between them below as long as or slightly longer than height of an eye, inner margins strongly convergent downwards; supraclypeal suture absent; supra-antennal tubercles strongly protruding, distance between antennal sockets slightly broader than shortest breadth of inner orbit; frons flat; antenna short and stout, slightly longer than head width, pedicel longer than broad, third segment much longer than fourth segment, outer side of 4th-9th segments with a distinct furrow; breadth of anterior lobe of pronotum more than 4 times diameter of an ocellus and with a sharp submarginal carina, dorsal-lateral carina of pronotum also quite distinct; ventral sides of prepleura (cervical sclerites) meet broadly, ventral side of mesepisternum with a thorn, katepimeron with a deep fovea; metepimeron small and narrow, without appendage; mesoscutellum elevated, usually with an acute peak; cenchri small, distance between them 2 times as long as breadth of a cenchrus (CD= 2); metascutellum with a short but quite broad anterior basin; first tergite of abdomen elevated and strongly shining with a very fine middle suture; inner tibial spur of front leg broad and furcated; hind tibia distinctly longer than femur and as long as tarsus, apical spurs about half as long as basitarsus, basitarsus as long as following 3 tarsomeres together; claw cleft, inner tooth shorter than outer

This research was supported by the National Science Foundation of China (30371166, 30571504), also partly supported by FOK YING TUNG Education Foundation (81023) and Trans-century Training Programme Foundation for Talents, Education Ministry of China (2003).
Received 20 Feb. 2006, accepted 11 May 2006.

tooth, basal lobe absent; vein cu-a in forewing joining cell 1M at its basal 1/3, anal cell with a short and erect cross vein; anal cell in hind wing sessile, cell M much shorter than cell Rs; each annulus of lancet with 2 pores; penis valve simple; hind wing in male without marginal vein; head and thorax densely punctured.

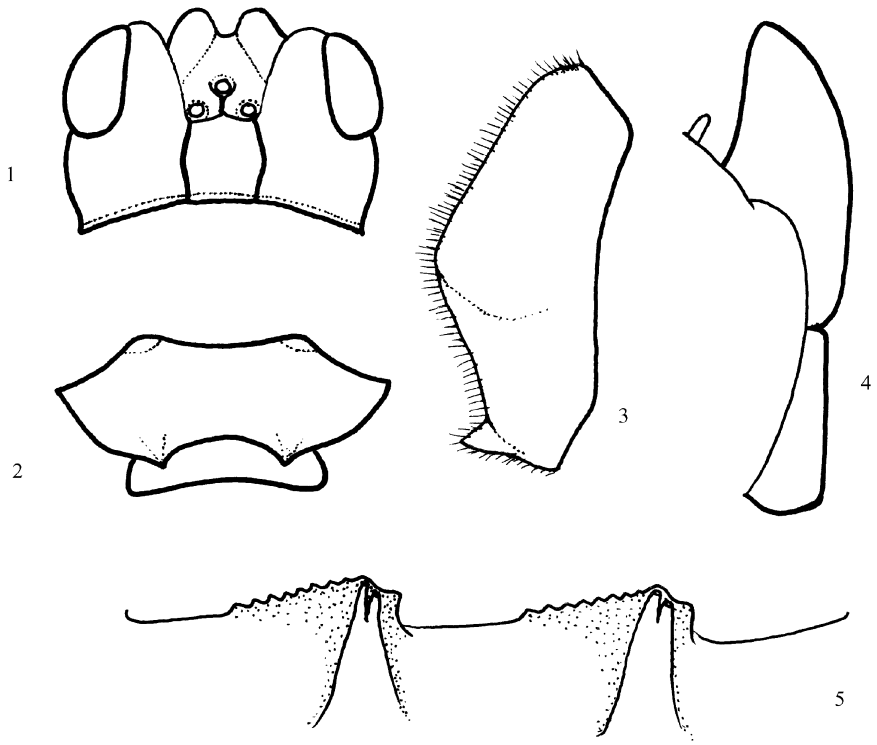
Distribution. China.

Goulet (1996) briefly discussed the relationships among the genera of Tenthredinini and merged many genera into the jumbo genus *Tenthredo* L. In my opinion his analysis on the monophyletic groups and lineages in Tenthredinini was too simplified, and mostly just a guess. It is too early to say or to do anything about the position of many genera related to *Tenthredo* before thorough investigations on the morphology and cladistic phylogeny of the tribe Tenthredinini being undertaken. *Tenthredo* is really too large for anything. It is a better choice at present to retain those genera, such as *Jermakia*, *Propodea*, *Casipteryx*, *Metallopeus* and *Peus*, etc..

This genus is endemic to China at present. Three species have been described including the new species described herein. They can be easily recognized using the following key.

Key to species of the genus Casipteryx **Taeger**

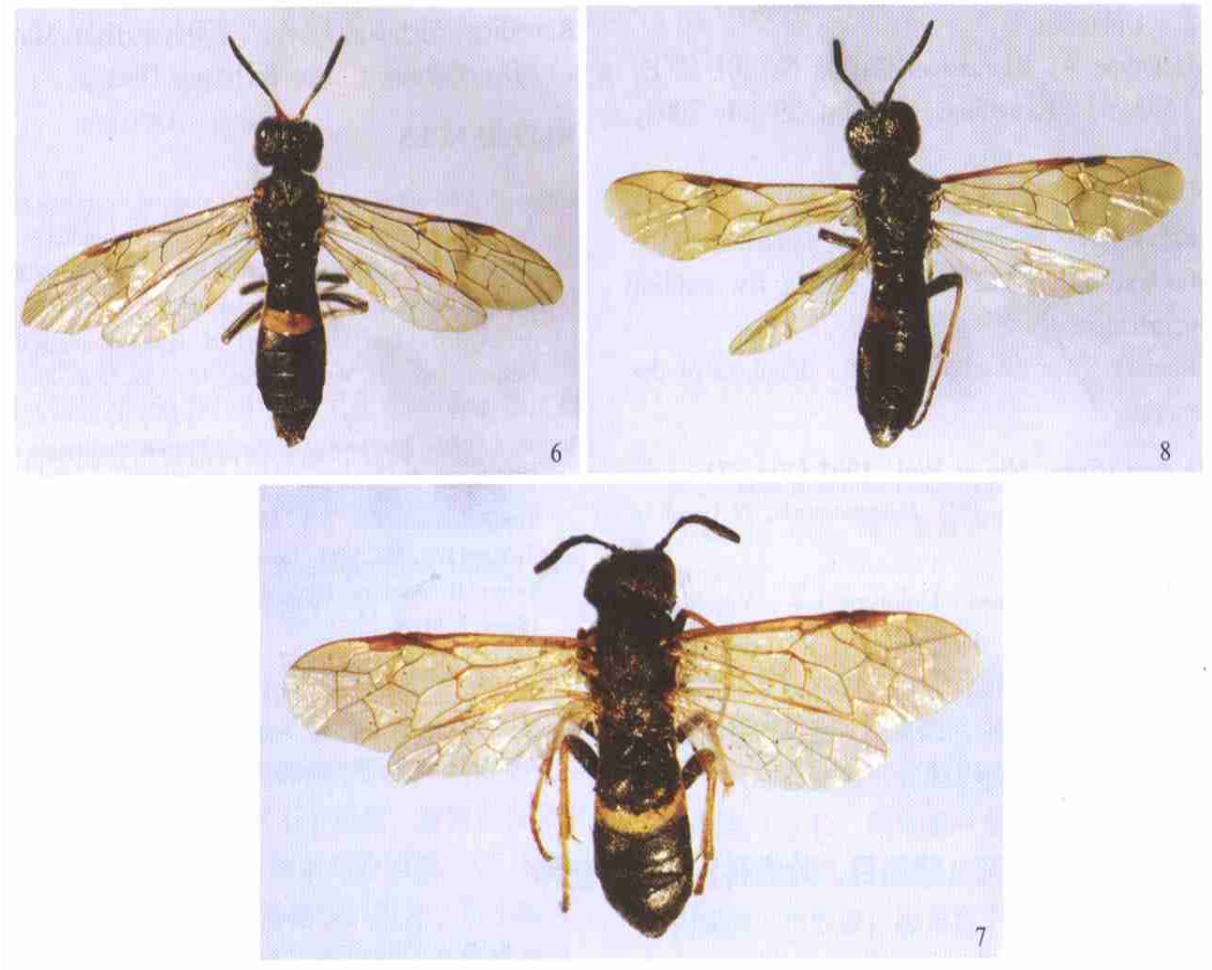
1. Supra-antennal tubercles, scape, pedicel, basal half of the third antennal segment, anterior half of clypeus, dorsal side of each mandible, tegulae and third abdominal tergite reddish yellow; forewing with a narrow infuscate cross band below stigma, cell 2Rs longer than 1R1 and 1Rs together; lateral furrows of postocellar area deep; flagellum longer than head breadth; tergites of abdomen with distinct metallic bronze tinge; distance between eyes below as long as height of an eye …… C. maculatina **sp. nov.**
Antenna, clypeus, dorsal side of mandible black, third tergite of abdomen yellow white; fore wing without infuscate cross band, cell 2Rs shorter than 1R1 and 1Rs together; lateral furrows of postocellar area quite shallow and indistinct; flagellum shorter than head breadth; tergites of abdomen without bronze tinge; distance between eyes below longer than height of an eye …… 2
2. Head distinctly narrowed behind eyes and the inner orbits distinctly protruding in dorsal view; clypeus with two acute processes and without rounded lateral lobe; anterior margin of labrum truncate; third antennal segment shorter than following 2 segments together; body hairs about 2 times as long as diameter of an ocellus; cell 2M longer than broad; stigma black and narrow, 3 times longer than broad; ventral side of mesepisternum with an acute thorn, mesoscutellum strongly elevated with acute peak; head dorsally and thorax coarsely and densely punctuated without shining interspaces; second tergite of abdomen without white spot laterally; serrulae flat with 23-25 fine teeth …… C. roborowskyi (**Jakovlev**)
Head distinctly dilated behind eyes and the inner orbits not protruding in dorsal view; clypeus without acute processes but with rounded lateral lobes; anterior margin of labrum incised; third antennal segment longer than following 2 segments together; body hairs shorter than diameter of an ocellus; cell 2M as long as broad; stigma pale and broad, about 2 times longer than broad; ventral side of mesepisternum with an obtuse thorn, mesoscutellum weakly elevated, apex not quite acute; head dorsally and thorax densely punctuated with fine shining inter spaces; second tergite of abdomen with a large white spot laterally; serrulae oblique with 12 fine teeth …… C. stigma **Nie** et **Wei**



Figs. 1-5. *Casipteryx maculatina* sp. nov. 1. Head in dorsal view. 2. Clypeus and labrum. 3. Mesepisternum in lateral view. 4. Sheath in lateral view. 5. The 8th-9th serrulae.

Casipteryx maculatina **sp. nov.** (Figs. 1-6)

♀. Body length 10.5 mm. Black, abdominal tergites with distinct metallic bronze tinge; supra-antennal tubercles, scape, pedicel, basal half of the third antennal segment, anterior half of clypeus, dorsal side of each mandible, tegulae and third abdominal tergite reddish yellow; second trochanter mostly of each leg, anterior side of front femur mostly, apices of middle and hind femora, each tibia mostly and tarsus yellow brown; wings sub-hyaline, forewing with a narrow infuscate cross band below stigma, vein C and stigma mostly pale brown, other veins and extreme base of stigma brownish black. Body hairs silvery.



Figs. 6-8. Adult. 6. *Casipteryx maculatina* sp. nov. 7. *Casipteryx stigma* Nie *et* Wei. 8. *Casipteryx roborowskyi* (Jakovlev, 1887).

Head in dorsal view as in Fig. 1; head distinctly and roundly narrowed behind eyes, inner orbits slightly protruding; clypeus with two acute processes, anterior margin of labrum shallowly incised (Fig. 2); postocellar area weakly elevated, longer than broad, lateral furrows quite distinct and slightly curved, interocellar and postocellar furrows fine; postorbit in lateral view about as broad as eye; eyes large, distance between eyes below as long as height of an eye; flagellum of antenna distinctly longer than head breadth, third antennal segment about as long as fourth and fifth segments together, each of sixth to ninth segments broader than long. Prescutum with deep middle furrow, hind apex of prescutum quite acute; mesoscutellum strongly elevated with an acute peak; posttergite slightly elevated with an obtuse middle carina; mesepisternum strongly convex in lower part, its ventral side with an acute thorn (Fig. 3). Stigma narrow and about 3 times longer than broad, cell 2Rs slightly longer than 1R1 and 1Rs together, cell 2M longer than broad; cell M in hind wing about half size of cell Rs. Body hairs mostly slightly longer than diameter of an ocellus. Head dorsally and thorax coarsely and densely punctuated without impunctate shining interspaces, clypeus and labrum sparsely punctured and strongly shining, posttergite shallowly

and sparsely punctured, metascutellum polished, impunctate; mesepimeron densely microsculptured; first abdominal tergite impunctate, strongly shining, second and third tergites sparsely punctured with fine microsculptures, other tergites densely punctured and microsculptured, less shining. Sheath in lateral view as in Fig. 4. Lancet with 22 serrulae, annular spines bands broad, middle serrulae oblique, each with about 8-9 outer subbasal teeth, 8th to 9th serrulae as in Fig. 5.

♂. Unknown.

Holotype ♀, Paomashan (30°03′N, 101°58′E, alt. 2 505 m), Kangding, Sichuan, 29 July 2005, ZHOU Hu.

Distribution. China, Sichuan.

Etymology. The new species is named after the specific body color that is black with a few reddish yellow maculae.

Remarks. See the above key for diagnosis of the new species.

Casipteryx stigma **Nie** et **Wei, 1997** (Fig. 7)

Casipteryx stigma Nie *et* Wei, 1997. *Entomotaxonomia*, 19 (suppl.): 92.

Specimens examined. Holotype 1 ♀, Yinchuan, Ningxia, No. 0281. Paratypes: 1 ♀, Suburb of Hohhot, Inner Mongolia, 16 July 1991; 1 ♀, Shanxi, July 1951; 1 ♂, Rehe, Hebei, Aug. 1955; 1 ♀, Hoyepingchou, 9 Aug. 1933.

Distribution. China, Hebei, Shanxi, Inner Mongolia, Ningxia.

Casipteryx roborowskyi **(Jakovlev, 1887)** (Fig. 8)

Allanthus (recte Allantus) roborowskyi: Jakovlev, 1887. *Horae Soc. Ent. Ross.*, 21: 160.

Casipteryx roborowskyi: Taeger, 1991. *Entomol. Abh. Mus. Tierk.*, 54 (3): 72.

Specimens examined. 1 ♀, Miyaluo, Li County, Sichuan, 2 800 m, 15 Sep. 1963; 1 ♂, Kangding, Sichuan, 12 Sept. 1938, ZHOU Yao; 1 ♀, Pengta, Kangding, Sichuan, 28 Aug. 2005, SHI Fu-Ming.

Distribution. China, Sichuan, Tibet.

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沟角叶蜂属分类研究 (膜翅目, 叶蜂科) 并记一新种

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摘 要 修订了沟角叶蜂属的属征, 编制了已知种分种检索表。记述沟角叶蜂属 3 种, 含 1 新种: 红斑沟角叶蜂 *Casipteryx maculatina* sp. nov., 新种触角窝上突、触角基部 2 节全部、第 3 节基半部、唇基端半部、上颚背侧大部、翅基片、腹部第 3 背板桔褐色, 前翅翅痣下具烟色横带, 2Rs 室稍长于 1R1+1Rs 室之和, 腹部背板具金属铜色光泽, 单眼后区侧沟显著, 触角鞭节长于头宽, 第 3 节约等于其后 2 节之和, 复眼下缘间距等宽于复眼高, 体毛稍长于单眼直径等, 与本属已知 2 种均明显不同; 此外, 新种中胸腹板具强腹刺突, 侧板刻纹粗糙不平, 无光滑间隙, 小盾片尖锥型隆起, 后头两侧显著收缩, 唇基前缘两侧亚中部具 1 尖刺突, 腹部第 2 背板两侧黑色, 无白斑, 前翅 2M 室长大于宽等与 *C. stigma* Nie *et* Wei 不同; 上唇端部具弧形缺口, 内眶背面观不明显突出于复眼之外等, 与 *C. roborowskyi* (Jakovlev) 也不相同。新种模式标本保存于中南林业科技大学昆虫标本馆。

关键词 膜翅目, 叶蜂科, 沟角叶蜂属, 新种, 中国.

中图分类号 Q969.542.6